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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,076	07/11/2003	Genichi Tanaka	032404-070	3388

7590 03/16/2006  
BURNS, DOANE, SWECKER & MATHIS, L.L.P.  
P.O. Box 1404  
Alexandria, VA 22313-1404

EXAMINER
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LIN, SUN J

ART UNIT	PAPER NUMBER
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2825

DATE MAILED: 03/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/617,076	TANAKA, GENICHI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sun J. Lin	2825	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-14 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/11/2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### **DETAILED ACTION**

1. This office action is in response to application 10/617,076 filed on 07/11/2003. Claims 1 – 14 remain pending in the application.

### **QUAYLE ACTION**

2. This application is in condition for allowance except for the following formal matters:

#### **Specification Objections**

Page 19, line 6, change “the user” to **—a user—**.

Page 19, line 7, change “timing constraints modification unit” to **—timing constraint modification unit—**.

#### **Drawing Objections**

Fig. 1, change “TIMING CONSTRAINTS FILE” TO **—TIMING CONSTRAINT FILE—**.

Fig. 1, change “NEW TIMING CONSTRAINTS FILE” TO **—NEW TIMING CONSTRAINT FILE—**.

Fig. 1, change “TIMING CONSTRAINTS CREATING DEVICE” TO **—TIMING CONSTRAINT CREATING DEVICE—**.

Fig. 1, change “TIMING CONSTRAINTS MODIFICATION UNIT” TO **—TIMING CONSTRAINT MODIFICATION UNIT—**.

#### **Claim Objections**

Claim 1, line 9, change “includes” to **—include—**.

Claim 1, line 11, change “the cells” to **—cells in the parent block—**.

Claim 1, line 13 – 14, change “the datapath extracted” to **—a datapath extracted—**.

Claim 2, line 2, change “datapath” to **—datapaths—**.

Claim 3, line 2, change “datapath” to **—datapaths—**.

Claim 6, line 2, change “the datapath having a timing error” to **—the datapaths having timing error—**.

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Claim 7, line 2, change "of datapath" to **—of each datapath—**.

Claim 8, line 2, change "the datapath" to **—each datapath—**.

Claim 11, line 1 – 2, change "the datapath" to **—a datapath—**.

Claim 12, line 1 – 2, change "the datapath" to **—a datapath—**.

Claim 13, line 1 – 2, change "the datapath" to **—a datapath—**.

Claim 14, line 1 – 2, change "the datapath" to **—a datapath—**.

Appropriate corrections are required.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

### **Reasons for Allowance**

3. The following is an examiner's statement of reasons for allowance:

Claims 1 – 14 are allowed because the prior art does not teach or fairly suggest the following subject matter:

- A device for creating timing constraints for semiconductor integrated circuit designed using a hierarchical design, the device comprising a datapath extraction unit that extracts datapaths, which are between at least two child blocks in a parent block, to be performed timing verification, a datapath output unit that creates a datapath list which allows a user to selectively specify a timing exception corresponding to a datapath extracted and a timing constraint modification unit that creates new timing constraints by modifying existing timing constraints based on the timing exception specified by the user in combination with other limitations as recited in independent **Claim 1**.

### **Conclusion**

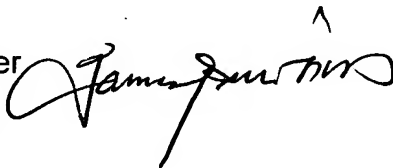
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Sun James Lin* whose telephone number is (571) 272 - 1899. The examiner can normally be reached on Monday-Friday 9:30AM - 6:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Jack Chiang* can be reached on (571) 272 - 7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sun James Lin  
Primary Examiner  
Art Unit 2825  
March 13, 2006

A handwritten signature in black ink, appearing to read "James Lin", with a small upward-pointing arrow above the first letter of the last name.